

1 **IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

2 Application Serial No.09/614,890
3 Filing Date July 12, 2000
4 Inventorship Kirovski et al.
5 Applicant Microsoft Corporation
6 Group Art Unit 2136
7 Examiner Colin, Carl
8 Confirmation No. 2503
9 Attorney's Docket No. MS1-587US
10 Title: Improved Audio Watermarking with Covert Channel and Permutations

11 To: Honorable Commissioner for Patents
12 Alexandria, VA 22313-1450

13 From: Emmanuel A. Rivera (Tel. 509-324-9256; Fax 509-323-8979)
14 **Customer No. 22801**

15 **RESPONSE TO OCTOBER 18, 2005 NON-FINAL OFFICE ACTION**

16 Sir:

17 In response to the office action (the Action) of **October 18, 2005**, the
18 response is provided as follows:

19 Amendments to the specification begin on page 2 of this paper.

20 The listing of the claims begins on page 3 of this paper.

21 Remarks/Arguments begin on page 16 of this paper.

1 Please replace the ABSTRACT with the following:
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3 Audio signals, such as a music clip, are inserted with detectable
4 watermarks. The inserted watermark can identify the content producer and
5 provide a signature embedded in the audio signal and cannot be removed. The
6 watermark can survive all typical kinds of processing and malicious attacks. The
7 watermark can be implemented in a watermarking system that employs a covert
8 channel encoder to layer an additional information data message or covert message
9 on top of the watermark. The watermarking system can also include a permutation
10 technique to further hide the watermark and hide the covert message within the
11 watermark.
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